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22428	7590	04/11/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			FINEMAN, LEE A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/035,202	Applicant(s) SPINK ET AL.	
	Examiner Lee Fineman	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 11-43 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 12, 14 and 18-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/4/04 & 1/26/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 January 2005 has been entered, in which claims 1, 11, 18, 23 and 26 were amended, claims 38-43 were added and claims 6-10 were cancelled. Claims 1-5 and 11-43 are pending of which claims 13 and 15-17 are withdrawn.

Drawings

2. Replacement drawings for Figs. 1-2 and Figs. 13-15 were received on 26 January 2005. These drawings are acceptable.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second deflecting mirror disposed in the second beam path (claims 3, 20, 30) in a system with four beam paths must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

Art Unit: 2872

should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 38, 41 and 43 are objected to because of the following informalities:

Regarding claims 38, 41 and 43, claims 1, 18 and 26 include the limitation “a beam splitter disposed in the first and second beam paths” while dependent claims 38, 41 and 43, which depend upon claims 1, 18 and 26 respectively, include the limitation “**the** beam splitter disposed in the first beam path superimposes the first beam path onto the third beam path to obtain a first combined beam path;” and “**the** beam splitter disposed in the second beam path superimposes the second beam path onto the fourth beam path to obtain a second combined beam path.” The claims appear to be contradictory by first referring to one beam splitter (claims 1, 18, 26) and then referring to two beam splitters (claims 38, 41, 43). For the purpose of examination of claims 38, 41 and 43, two additional beam splitters will be included.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 39 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 39 includes the limitation “the first beam path and the second beam path comprise an artificially generated light image, and wherein the third beam path and the fourth beam path comprise naturally generated light images.” The specification fails to specifically identify “artificially generated light image” or “naturally generated light images.” As such, the examiner contends, absent specific support in the specification, that this subject matter was not considered within the metes and bounds of the invention as originally filed and is new matter.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2872

8. Claims 1, 2 and 18 rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al., U.S. Patent No. 4,827,909 (Henceforth US-909).

Regarding claims 1 and 2, US-909 disclose a stereomicroscope (figs. 5-6) comprising a first beam path (unnumbered path above motor 40) and a second beam path (unnumbered path below motor 40), wherein the first and second beam paths are geometrically superimposable with respective third beam path (4a) and fourth beam path (4b); a beam splitter (38) disposed in the first and second beam paths (fig. 5); a single, non-reflecting, rotating shutter (39), wherein said shutter comprise at least one aperture diaphragm (39a) for alternately making the first and second beam paths passable by light or blocking said given first and second beam path in a light-tight manner (column 5, lines 38-45); and wherein the shutter has a plurality of opaque and transmissive regions (fig. 6), wherein a rotation speed is reduceable (via motor control 40, 41). The preamble fails to structurally limit the body of claim. US-909 meets all of the structural limitations required by the claim in support thereof. As such, US-909 must support a stereomicroscope in the same way as the structure of the claim. Therefore, regarding claim 18, at least a portion of the third and fourth beam paths are located in the stereomicroscope (fig. 5).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US-909 in view of Miyakawa et al., U.S. Patent No. 5,028,994.

US-909 further discloses the first and second beam paths are superimposable at a location proximate to a position of the beam splitter (fig. 5). US-909 discloses the claimed invention except for a first deflecting mirror disposed in the first beam path; and a second deflecting mirror in the second beam path. Miyakawa et al. is an example that deflecting mirrors are very well known in the art for changing the direction of a beam path (22, 23, 26, fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a first deflecting mirror in the first beam path and a second deflecting mirror in the second beam path to be able to provide a more compact device by folding the beam path.

11. Claims 1-2, 4-5, 11-12, 18-19, 21-24, 26-29, 31-36 and 38-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aritake et al., Japanese Patent Publication No. JP0237423 in view of Kohlhaas et al., German Patent Publication No. DE 4243452 A1.

Regarding claims 1-2, 11, 18-19, 23, 26, 29 and 33, Aritake et al. discloses in fig. 9 a stereomicroscope comprising a first beam path (through 25a) and a second beam path (through 25b), wherein the first and second beam paths are geometrically superimposable with respective third beam path (from 7 to 5a) and fourth beam path (from 7 to 5b); a beam splitter/first beam splitter (23) disposed in the first and second beam paths (fig. 9); a shutter (25a, 25b, LCDs) for alternately making the first and second beam paths passable by light or blocking said given first and second beam path in a light-tight manner (see page 5, column 1, lines 23-35); at least a portion of the third and fourth beam paths are located in the stereomicroscope (fig. 9); and a

Art Unit: 2872

display (3) to provide image information to the first and second beam paths wherein the image information passes the shutter (25a, 25b) before being superimposed on another beam path (fig. 9). Aritake et al. discloses the claimed invention except for the shutter being a single, non-reflecting, rotating shutter, wherein said shutter comprise at least one aperture diaphragm for alternately making the first and second beam paths passable by light or blocking said given first and second beam path in a light-tight manner; and wherein the shutter has a plurality of opaque and transmissive regions, wherein a rotation speed is reduceable. Kohlhaas et al teaches that an LCD shutter (24, 25fig. 2a) and a single, non-reflecting, rotating shutter (20, figs. 1a and 1b), wherein said shutter comprise at least one aperture diaphragm (1 or 2) for alternately making the first and second beam paths passable by light or blocking said given first and second beam path in a light-tight manner (see fig. 1) are art-recognized equivalents in the microscope art. Kohlhaas et al. further teaches wherein the shutter has a plurality of opaque and transmissive regions (fig. 1b) and wherein a rotation speed is reduceable (via motor 23 and motor control PLL). It would have been obvious to one of ordinary skill in the art at the time the invention was made use any of the above shutters, including the claimed single, non-reflecting, rotating shutter, in the system of Aritake et al. to provide alternating light to the system.

Regarding claims 4-5, 21-22 and 31-32, Aritake et al. further discloses an image recording device (eye) disposed in the third beam path (fig. 9); a shutter motor (23, Kohlhaas) to drive said rotating shutter, wherein the shutter motor is driven in synchronization with a reading of the image recording device (inherently the images must be synchronized with the eye's viewing to be able to provide the stereoscopic effect).

Regarding claims 12, 24, 27-28 and 34-36, Aritake et al. further discloses in fig. 9 the stereomicroscope further comprising left and right eyepieces (5a, 5b); a second beam splitter (6a) disposed in the first beam path; and a third beam splitter (6b) disposed in the second beam path and wherein the image information from the display (3) is viewed by an observer (eyes) through the eyepieces (fig. 9); wherein the image generated by a display device (3) is conveyed along the third and fourth beam paths after being conveyed along the first and second beam paths, respectively (fig. 9); wherein the third and fourth beam paths pass through a first (5a) and second (5b) eyepiece, respectively.

Regarding claims 38-43, Aritake et al. further discloses in fig. 9 the stereomicroscope further comprising a first eyepiece (5a) and a second eyepiece (5b); and a main objective (4), wherein the third and fourth beam paths pass through the main objective (fig. 9); wherein a second beam splitter (6a) disposed in the first beam path superimposes the first beam path onto the third beam path to obtain a first combined beam path (from 6a to eye, fig. 9); a third beam splitter (6b) disposed in the second beam path superimposes the second beam path onto the fourth beam path to obtain a second combined beam path (from 6b to eye, fig. 9); the first combined beam path is directed through the first eyepiece (fig. 9); and the second combined beam path is directed through the second eyepiece (fig. 9). Regarding claim 39, in as much as an artificially generated light image (from display 3) and a naturally generated light image (from sample 7) can be understood in light of the 35 U.S.C 112 rejection made above the rejection applies.

Art Unit: 2872

12. Claims 3, 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aritake et al. in view of Kohlhaas et al., as applied to claims 1, 18, and 26, and further in view of Miyakawa et al.

Aritake et al. in view of Kohlhaas et al. as applied to claims 1, 18, and 26, further disclose a first deflecting mirror (24) disposed in the first beam path (fig. 9, Aritake); and the first and second beam paths are superimposable at a location proximate to a position of the beam splitter (fig. 9, Aritake). Aritake et al. in view of Kohlhaas et al. as applied to claims 1, 18, and 26, disclose the claimed invention except for a second deflecting mirror in the second beam path. Miyakawa et al. is an example that deflecting mirrors are very well known in the art for changing the direction of a beam path (22, 23, 26, fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a second deflecting mirror in the second beam path to be able to provide a more compact device by folding the beam path.

13. Claims 14, 25 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aritake et al. in view of Kohlhaas et al., as applied to claims 12, 24 and 36 above, and further in view of Minns et al., U.S. Patent No. 3,353,892.

Aritake et al. in view of Kohlhaas et al., as applied to claims 12, 24 and 36 above disclose the claimed invention except for a first prism disposed in the first beam path; and a second prism in the second beam path wherein the prisms guide the image information into respective eyepieces. Prisms are well known in the art for guiding optical image information. For example, Minns et al. teach a stereoscopic microscope (fig. 1 and 2) with a prism (7, 8) for guiding optical image information to the eyepieces (10). Therefore it would have been obvious to one of

Art Unit: 2872

ordinary skill in the art at the time the invention was made to use well-known prisms in the system of Aritake et al. in view of Kohlhaas et al. to provide a specific beam path which guides optical image information to the eyepieces.

Response to Arguments

14. Applicant's arguments with respect to claims 1-5, 11-12, 14 and 18-43 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masukane, Japanese Patent Publication No. JP59218087A which discloses a rotating shutter for stereoscopic viewing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF

April 4, 2005



MARK A. ROBINSON
PRIMARY EXAMINER